

# X-ray Screens

## High resolution X-ray imaging for security and NDT applications

The excellent sensitivity and robustness of our phosphor based intensifying screens allow for reliable, high resolution X-ray imaging for mail, parcel, baggage and cargo inspection and for use in industrial NDT, health and safety, and quality control.



### Primary specifications

**Luminex** Gadox:Tb screens manufactured with high efficiency phosphors which make them particularly suitable for lens-coupled systems working in low light conditions. Peak emission in the green at 545nm and intrinsic efficiency 15%.

	Light Output <sup>(1)</sup>	MTF % @ 2lp/mm <sup>(2)</sup>	MTF % @ 5lp/mm <sup>(2)</sup>	Attenuation % <sup>(2)</sup>	Decay to 10% $\mu$ s	Afterglow @ 20ms %
Ultrabright	205%	18	4	92	1,500	< 0.1%
Bright	175%	21	7	92	1,500	< 0.1%
Medium	170%	23	5	91	1,500	< 0.1%
Fine	129%	42	15	86	1,500	< 0.1%
UltraFine	70%	65	29	83	1,500	< 0.1%
UltraFine Plus	50%	76	45	76	1,500	< 0.1%
HyperFine	36%	85	67	-	1,500	< 0.1%

**Rapidex** Gadox:Pr screens with rapid decay, specifically designed for fast linear array detectors and pencil-beam back-scatter systems. Peak emission in the green at 513nm and intrinsic efficiency 12%.

	Light Output <sup>(1)</sup>	MTF % @ 2lp/mm <sup>(2)</sup>	MTF % @ 5lp/mm <sup>(2)</sup>	Attenuation % <sup>(2)</sup>	Decay to 10% $\mu$ s	Afterglow @ 20ms %
Bright	92%	16	4	97	7	< 0.1%
Medium	91%	19	5	94	7	< 0.1%
Fine	81%	32	9	89	7	< 0.1%

**MeVex** Gadox:Tb screens manufactured to maximise system gain and provide high signal to noise ratio in MeV applications.

(1) Relative to Lanex Regular benchmark screen. X-Ray Source: 150kV Unfiltered

(2) X-Ray Source: 70kV

## screen size

Scintacor screens can be cut to match the specific applications/requirements of the customer. The screens can be manufactured up to maximum dimensions of 100cm x 150cm.

## thin strips

Scintacor screens can be precision cut into strips for use with linear detectors. These strips are particularly useful in high throughput applications.

## substrates

Scintacor screens are manufactured on a Melinex white polyester material. Alternative substrates can be developed on demand to meet the needs of the customer.

## construction

A wide range of mountings and support materials are available, such as aluminium, bakelite and perspex. Wall thickness tolerances can be agreed on demand.

## protective layer

The screens can be manufactured to include an acetate layer to protect the integrity of the phosphor during transport and handling.



## applications

### Security applications

Constructed using a phosphor based scintillator provided on a range of materials. Our screens offer a high performance, reliable product for X-ray imaging in security applications.

### NDT applications

Our phosphor based screens provide an optimised imaging solution for many different products within the non-destructive testing spectrum.

Our technology provides significant improvements in image resolution over alternative technologies, with unique non-burn properties providing a longer screen life with superior resolution and light output.

## customised solutions

Our manufacturing flexibility allows us to fully customise the size and shape of our screens, we also have the capability to supply the screens as self-supporting sheets or mounted to a variety of materials.

With size and shape, emission spectra, decay time and X-ray absorption characteristics customisable to your requirements, we can design and manufacture each screen to suit your exact application and operational demands.

### Scintacor

125 Cowley Road, Cambridge Commercial Park,  
Cambridge, CB4 0DL, United Kingdom

t +44 (0)1223 223060 e sales@scintacor.com

[www.scintacor.com](http://www.scintacor.com)